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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,898	11/18/2003	Hideki Kurokawa	037267-0150	2796
22428	7590	07/02/2007		
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER PHUONG, DAI	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 07/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/714,898

Applicant(s)

KUROKAWA ET AL.

Examiner

Dai A. Phuong

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-29, 41-52 and 66-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-19, 21, 23-27, 41-45, 47, 49-52, 66-70, 72 and 74-78 is/are rejected.
- 7) ☒ Claim(s) 20, 22, 28, 29, 46, 48, 71, 73 and 79 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Applicant's election without traverse of Group II claims 15-29, 41-52 and 66-79 in the reply filed on 04/27/2007 is acknowledged. Claims are currently pending 15-29, 41-52 and 66-79

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15-18, 23-27, 41-45, 47, 49-52, 66-70, 72 and 74-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funato et al. (Pub. No: 20060025161) in view of Criss et al. (Pub. No: 20010029178)

Regarding claim 15, Funato et al. disclose a wireless communication system including a radio-signal base station, and at least one mobile wireless terminal which operates in a power-saving mode in which said mobile wireless terminal intermittently receives packet signals, and in a normal mode in which said mobile wireless terminal regularly receives packet signals,

wherein when said radio-signal base station receives packet signals addressed to a mobile wireless terminal being in said power-saving mode, said radio-signal base station temporarily stores the received packet signals until said mobile wireless terminal requests said radio-signal base station to transmit said packet signals thereto ([0043]).

However, Funato et al. do not disclose said mobile wireless terminal requests said radio-signal base station to transmit said packet signals thereto and transfers to said normal mode from said power-saving mode, if said mobile wireless terminal judges that the received packet signals are packet signals to be received in real-time communication, said mobile wireless terminal receives entirety of said packet signals in said normal mode, and said mobile wireless terminal transfers to said power-saving mode when said packet signals have been all received in real-time communication.

In the same field of endeavor, Criss et al. said mobile wireless terminal requests said radio-signal base station to transmit said packet signals thereto and transfers to said normal mode from said power-saving mode, if said mobile wireless terminal judges that the received packet signals are packet signals to be received in real-time communication, said mobile wireless terminal receives entirety of said packet signals in said normal mode, and said mobile wireless terminal transfers to said power-saving mode when said packet signals have been all received in real-time communication ([0135] to [0138]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the telecommunication system of Funato et al. by specifically including said mobile wireless terminal requests said radio-signal base station to transmit said packet signals thereto and transfers to said normal mode from said power-saving mode, if said mobile wireless terminal judges that the received packet signals are packet signals to be received in real-time communication, said mobile wireless terminal receives entirety of said packet signals in said normal mode, and said mobile wireless terminal transfers to said power-saving mode when said packet signals have been all received in real-time communication., as taught by

Criss et al., the motivation being in order to provide a method which does not require significant down time and service costs. Additionally, the amount of activity the host computer is subject to at higher activity or peak time is reduced.

Regarding claim 16, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication system wherein if said mobile wireless terminal judges that the received packet signals are packet signal not necessary to be received in real-time communication, said mobile wireless terminal transfers to said power-saving mode from said normal mode ([0135] to [0138]).

Regarding claim 17, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication system wherein said mobile wireless terminal transfers to said power-saving mode when entirety of said packet signals has been received ([0135] to [0138]).

Regarding claim 18, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication system wherein said radio-signal base station periodically transmits an informative signal to said mobile wireless terminal being in said power-saving mode, and said mobile wireless terminal is aware that packet signals addressed to said mobile wireless terminal are stored in said radio-signal base station, by analyzing the received informative signal ([0043]).

Regarding claim 23, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication wherein said mobile wireless terminal sets a longer interval at which said mobile wireless terminal receives

Art Unit: 2617

said packet signals, for a smaller frequency at which said packet signals are transmitted from said radio-signal base station ([0135] to [0138]).

Regarding claim 24, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication wherein said mobile wireless terminal sets a longer interval at which said mobile wireless terminal receives said packet signals, if said mobile wireless terminal cannot receive said announcement from said radio-signal base station ([0135] to [0138]).

Regarding claim 25, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication wherein said mobile wireless terminal checks whether the received packet signals include data indicative of commencement of real-time communication, and if the received packet signals include such data, said mobile wireless terminal judges said packet signal to be received in real-time communication ([0135] to [0138]).

Regarding claim 26, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication wherein said mobile wireless terminal checks whether the received packet signals include real-time transmission protocol, and if the received packet signals include said real-time transmission protocol, said mobile wireless terminal judges said packet signal to be received in real-time communication ([0135] to [0138]).

Regarding claim 27, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. Further, Criss et al. disclose the wireless communication wherein said mobile wireless terminal is comprised of a cellular phone ([0043]).

Regarding claim 41, this claim is rejected for the same reason as set forth in claim 15.

Regarding claim 42, this claim is rejected for the same reason as set forth in claim 16.

Regarding claim 43, this claim is rejected for the same reason as set forth in claim 17.

Regarding claim 44, this claim is rejected for the same reason as set forth in claim 18.

Regarding claim 45, this claim is rejected for the same reason as set forth in claim 19.

Regarding claim 47, this claim is rejected for the same reason as set forth in claim 21.

Regarding claim 49, this claim is rejected for the same reason as set forth in claim 23.

Regarding claim 50, this claim is rejected for the same reason as set forth in claim 24.

Regarding claim 51, this claim is rejected for the same reason as set forth in claim 25.

Regarding claim 52, this claim is rejected for the same reason as set forth in claim 26.

Regarding claim 66, this claim is rejected for the same reason as set forth in claim 15.

Regarding claim 67, this claim is rejected for the same reason as set forth in claim 16.

Regarding claim 68, this claim is rejected for the same reason as set forth in claim 17.

Regarding claim 69, this claim is rejected for the same reason as set forth in claim 18.

Regarding claim 70, this claim is rejected for the same reason as set forth in claim 19.

Regarding claim 72, this claim is rejected for the same reason as set forth in claim 21.

Regarding claim 74, this claim is rejected for the same reason as set forth in claim 23.

Regarding claim 75, this claim is rejected for the same reason as set forth in claim 24.

Regarding claim 76, this claim is rejected for the same reason as set forth in claim 25.

Regarding claim 77, this claim is rejected for the same reason as set forth in claim 26.

Regarding claim 78, this claim is rejected for the same reason as set forth in claim 27..

4. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Funato et al. (Pub. No: 20060025161) in view of Criss et al. (Pub. No: 20010029178) and further in view of Shoobridge (U.S. 7155262).

Regarding claim 19, the combination of Funato et al. and Criss et al. disclose all the limitations in claim 15. However, the combination of Funato et al. and Criss et al. do not disclose the wireless communication system disclose the wireless communication system wherein said mobile wireless terminal receives said informative signal in said power-saving mode at an interval determined by itself.

In the same field of endeavor, Shoobridge the wireless communication system disclose the wireless communication system wherein said mobile wireless terminal receives said informative signal in said power-saving mode at an interval determined by itself (see abstract and col. 5, line 40 to col. 6, line 25).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the telecommunication of Funato et al. by specifically including the wireless communication system disclose the wireless communication system wherein said mobile wireless terminal receives said informative signal in said power-saving mode at an interval determined by itself, as taught by Shoobridge, the motivation being in order to provide a mobile communication device with the ability to quickly reestablish a communication session with another after the communication device is awoken from a sleep or idle mode.

Regarding claim 21, this claim is rejected for the same reason as set forth in claim 19.



*Reasons Subject Matter*

5. Claims 20, 22, 28-29, 46, 48, 71, 73 and 79 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 20, the prior art record does not disclose nor fairly suggest wherein if said mobile wireless terminal judges that it would not be necessary to carry out real-time communication for receiving entirety of said packet signals, said mobile wireless terminal intermittently receives said packet signals at a certain interval in said power-saving mode.

Regarding claim 22, the prior art record does not disclose nor fairly suggest wherein said mobile wireless terminal receives said packet signals at an interval equal to  $N \times I$ , wherein said  $I$  indicates an interval at which said mobile wireless terminal receives said informative signal from said radio-signal base station, and said  $N$  is a positive integer equal to or greater than two (2).

Regarding claim 28, the prior art record does not disclose nor fairly suggest wherein said radio-signal base station includes functions of: transmitting packet signals for real-time communication to a communication network after certain protocol communication; memorizing a mobile wireless terminal(s) which is(are) in said power-saving mode, among a plurality of mobile wireless terminals; periodically transmitting an informative signal to said mobile wireless terminal which is in said power-saving mode; temporarily storing packet signals addressed to said mobile wireless terminal which is in said power-saving mode; when said radio-signal base station stores packet signals addressed to said mobile wireless terminal which is in said power-saving mode, combining information indicating so to said informative signal; and on receipt of a

request from said mobile wireless terminal to transmit said packet signals stored therein, to said mobile wireless terminal, transmitting said packet signals intermittently to a mobile wireless terminal which is in said power-saving mode, but regularly to said mobile wireless terminal, if said mobile wireless terminal is transferred to said normal mode.

Regarding claim 29, the prior art record does not disclose nor fairly suggest wherein said mobile wireless terminal includes functions of: when said mobile wireless terminal transfers to said power-saving mode from said normal mode, informing said radio-signal base station of such mode-transfer; determining an interval at which said mobile wireless terminal receives signals, said interval being equal to  $N \times I$  wherein  $N$  is a positive integer equal to or greater than two (2), and  $I$  indicates an interval at which said radio-signal base station transmits said announce signal; receiving said informative signal from said radio-signal base station at said interval when said mobile wireless terminal is in said power-saving mode; if the received informative signal includes information indicating that said radio-signal base station stores packet signals addressed to said mobile wireless terminal, requesting said radio-signal base station to transmit said packet signals to said mobile wireless terminal; judging whether said packet signals are necessary to be received in real-time communication, based on a protocol of the received packet signals; requesting said radio-signal base station to transmit all of said packet signals to said mobile wireless terminal, and transferring to said normal mode from said power-saving mode; transferring to said power-saving mode from said normal mode when said packet signals have been all transmitted to said mobile wireless terminal.

Regarding claim 46, the prior art record does not disclose nor fairly suggest further comprising the step of, if said mobile wireless terminal judges that it would not be necessary to

carry out real-time communication for receiving entirety of said packet signals, intermittently receiving said packet signals at a certain interval in said power-saving mode, the step being carried out by said mobile wireless terminal.

Regarding claim 48, the prior art record does not disclose nor fairly suggest further comprising the step of receiving said packet signals at an interval equal to  $N \times I$ , wherein said  $I$  indicates an interval at which said mobile wireless terminal receives said informative signal from said radio-signal base station, and said  $N$  is a positive integer equal to or greater than two (2), the step being carried out by said mobile wireless terminal.

Regarding claim 71, the prior art record does not disclose nor fairly suggest wherein if said mobile wireless terminal judges that it would not be necessary to carry out real-time communication for receiving entirety of said packet signals, said mobile wireless terminal intermittently receives said packet signals at a certain interval in said power-saving mode.

Regarding claim 73, the prior art record does not disclose nor fairly suggest wherein said mobile wireless terminal receives said packet signals at an interval equal to  $N \times I$ , wherein said  $I$  indicates an interval at which said mobile wireless terminal receives said informative signal from said radio-signal base station, and said  $N$  is a positive integer equal to or greater than two (2).

Regarding claim 79, the prior art record does not disclose nor fairly suggest wherein said mobile wireless terminal includes functions of: when said mobile wireless terminal transfers to said power-saving mode from said normal mode, informing said radio-signal base station of such mode-transfer; determining an interval at which said mobile wireless terminal receives signals,

Art Unit: 2617

said interval being equal to  $N \times I$  wherein  $N$  is a positive integer equal to or greater than two (2), and  $I$  indicates an interval at which said radio-signal base station transmits said announce signal; receiving said informative signal from said radio-signal base station at said interval when said mobile wireless terminal is in said power-saving mode; if the received informative signal includes information indicating that said radio-signal base station stores packet signals addressed to said mobile wireless terminal, requesting said radio-signal base station to transmit said packet signals to said mobile wireless terminal; judging whether said packet signals are necessary to be received in real-time communication, based on a protocol of the received packet signals; requesting said radio-signal base station to transmit all of said packet signals to said mobile wireless terminal, and transferring to said normal mode from said power-saving mode; transferring to said power-saving mode from said normal mode when said packet signals have been all transmitted to said mobile wireless terminal.


### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dai A Phuong whose telephone number is 571-272-7896. The examiner can normally be reached on Monday to Friday, 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen M Duc can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-7503.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dai Phuong  
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Date: 06/21/2007

  
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